The Stout Institute Bulletin

Sixteenth
Annual Catalog
1918-1919

Menomonie, Wisconsin

THE STOUT INSTITUTE BULLETIN

ANNOUNCEMENT
1918-1919

THE STOUT INSTITUTE BULLETIN

GENERAL INFORMATION
AND COURSES OF STUDY FOR
THE SCHOOL YEAR
1918-1919

BOARD OF TRUSTEES

Ex-Officio Members:
C. P. CARY, State Superintendent of Schools, Madison.
THOMAS F. KONOP, State Industrial Commissioner, Madison.

Employer Members:
E. W. SCHULTZ, Sheboygan.
R. S. COOPER, Kenosha.
E. J. KEARNEY, Milwaukee.

Employee Members:
A. W. McTAGGART, Superior.
J. H. McQUAID, Milwaukee.
OLIVER ELLSWORTH, Oshkosh.

Agriculural Members:
C. E. HANSON, River Falls.
GEORGE F. COMINGS, Eau Claire.
MILES L. HINEMAN, Tomah.

CALENDAR FOR 1918-1919

Twelfth Annual Summer Session begins July 29, 1918.
Summer Session ends August 30, 1918.
Sixteenth Regular Session begins September 16, 1918.
Holiday vacation December 20, 1918, to January 7, 1919.
First Semester ends January 31, 1919.
Second Semester begins February 3, 1919.
Sixteenth Regular Session ends June 6, 1919.

ANNOUNCEMENT

FOR THE SIXTEENTH ANNUAL SESSION
OF

THE STOUT INSTITUTE

MENOMONIE, WISCONSIN
1918-1919

OFFICERS OF ADMINISTRATION

L. D. HARVEY, President of The Stout Institute.
ROBERT H. RODGERS, Director of Industrial Arts School.
DAISY ALICE KUGEL, Director of Household Arts School.
GEORGE S. MILLER, Director of Physical Education.
GRACE M. DOW, Director Bertha Tainter Hall.
MABEL H. LEEDOM, Preceptress Tainter Hall Annex.
KATHERINE A. HAHN, Librarian.
CHRISTINE HALSETH, Assistant Librarian.
B. M. FUNK, Business Manager.
THOMAS L. THORSEN, Engineer.
MARY L. CASE, Registrar.
CAROLINE M. HELMER, Secretary.

FACULTY

INSTRUCTORS FOR THE SCHOOL YEAR

L. D. HARVEY, Psychology, Principles of Education, and Sociology.

Milton College, B. A., 1872; Ph. D., 1898. High school principal, 1873-1879; city superintendent, 1880-1885; normal schools, 1885-1898; state superintendent, 1899-1902; superintendent Stout Training Schools, 1903-1908; president Stout Institute, 1908-

ROBERT H. RODGERS, Vocational Education, Administrative Problems, Teaching and Organization of Industrial Arts.

Oregon Agricultural College, B. S. in Mechanical Engineering, 1909; Teachers' College, Columbia University, B. S. and bachelor's diploma in supervision of industrial education, 1913; graduate study, Teachers' College, 1913-1914. Patternmaker, Portland, Oregon, 1898-1905; instructor in woodwork, turning and pattern making, Oregon Agricultural College, 1909-1912; instructor in mechanical drawing St. George Evening Trade School, New York City, 1912-1913; director of Home Thrift Association shops, New York City, 1913-1914; Stout Institute, 1914-

FRED L. CURRAN, Elementary Woodwork, Supervision of Practice Teaching.

State Normal School, Stevens Point, Wis., 1905; Stout Institute, 1908; Bradley Polytechnic Institute summers, 1908, 1909. Teacher in public schools, 1898-1903; principal state graded schools, 1905-1907; Stout Institute, 1908-

CHARLES E. ESLINGER, Printing.

Stout Institute, 1912. Four years' experience as practical printer; teacher of printing, Stout Institute, 1912-

H. F. GOOD, Physics, Mathematics, Strength of Materials. Gas Engines.

Iowa State College, B. S. in Electrical Engineering, 1913; B. S. in Agricultural Engineering, 1914; teacher of Agricultural Engineering, Dunn County School of Agriculture, 1914-1918; Stout Institute, 1918-

HENRY O. GRUBERT, Wood Turning, Wood Finishing.

Stout Institute 1907. Served apprenticeship in wood turning shops; fifteen years' experience in all grades of wood turning; six years' experience in turning hard rubber, bone, ivory, and amber; five years' experience as shop manager. Stout Institute, 1913-

H. M. HANSEN, Cabinet Making, Mill Work, Saw Filing.

Fourteen years' experience in mill work and as pattern maker, carpenter, and draftsman; Stout Institute, 1912-

R. F. JARVIS, Economics, History.

Shop work, 1905; University of Missouri, B. S., 1912. Assistant in engineering shop work, University of Missouri, 1906; instructor in manual training, Birmingham, Ala., 1907-1911; assistant in manual training, University of Missouri, 1911-1912; Stout Institute, 1912-

GEORGE S. MILLER, Physical Training and Athletics.

Normal College of the North American Gymnastic Union, Indianapolis, Ind., 1912; School for Athletic Coaches, University of Illinois, 1913; Summer School of Physical Education Harvard University, 1914. Director Physical Training and Athletics, Evansville, Ind., 1914-1917; Stout Institute, 1917-

H. C. MILNES, Machine Shop Practice, Foundry Work, Pattern Making.

Armour Institute, 1904-1906; Columbia University, summer, 1909; Chicago University, summers, 1910, 1911; four years' practical work in machine trades. Teacher of manual arts, Evansville, Indiana, 1909-1916; Stout Institute, 1916-

J. E. RAY, Bricklaying, Cement Work, Drafting.

Williamson Trade School, 1908; Stout Institute, 1917; seven years' experience as journeyman bricklayer and foreman in various parts of the United States; Stout Institute, 1914-

DAISY ALICE KUGEL, Organization of Household Arts, Teaching Household Arts, Extension Work.

University of Michigan, A. B., 1900; Columbia University, B. S. and diploma Teachers' College, 1908. Teacher in public schools, 1902-1906; teacher of domestic science, Chautauqua, N. Y., summer, 1911; director of department of Home Economics, Stout Institute, 1909-

BERTHA BISBEY, Dietetics, Hygiene and Sanitation.

Kansas State Normal, 1893-1894; University of Chicago, summer session, 1908; Stout Institute, 1912; summer session Teachers' College, 1915. Teacher in public schools, Alma, Kansas, 1900-1903; Manhattan, Kansas, 1903-1908; teacher of mathematics, Kansas State Agricultural College, Manhattan, Kansas, 1908-1909; Stout Institute, 1912-

CLARA LOUISE BOUGHTON, Cookery, Food Study.

State Normal School, Milwaukee, 1890-1893; Stout Institute, 1909-1910. Teacher in public schools, Manitowoc, 1893-1909; director domestic science, Racine, 1910-1911; Stout Institute, 1911-

GRACE M. DOW, Institutional Management.

St. Paul Teachers' Training School, 1897; University of Minnesota, summer session, 1910; Stout Institute, 1911. Teacher in public schools, St. Paul, 1897-1898; Stout Institute, 1911-

ELEANOR M. DUNN, Food Study, Experimental Cookery.

Whitewater Normal School, 1906; Milton College, 1908-1909; Stout Institute, 1913. High school instructor, 1906-1908, 1909-1911; director of household arts, State Normal School, Warrensburg, Missouri, 1913-1914; Stout Institute, 1914-

GLADYS T. HARVEY, Interior Decoration, Drawing and Design.

University of Wisconsin, 1905-1906; Art Institute of Chicago, 1906-1908; Stout Institute, summer sessions, 1908, 1911, 1912; Handicraft School of Design and Normal Art, Minneapolis, 1910-1912; student, Columbia University, 1918. Stout Institute, 1913-1917.

BESSIE F. HOLMAN, Dressmaking, Supervision of Practice Teaching.

Earlham College, Richmond, Indiana, 1906-1907; Teachers' College, Columbia University, Diploma Domestic Art, 1909; Teachers' College, Columbia University, B. S., 1912. Teacher Household Arts, Georgia Normal and Industrial College, Milledgeville, Georgia, 1909-1911; Assistant in Household Arts, Summer Session, Teachers' College, Columbia University, 1912; teacher of Household Arts, State Normal School, Buffalo, New York, 1912-1916; Stout Institute, 1916-

ALMA KRUEGER, Physical Training.

Normal College, North American Gymnastic Union, Indianapolis, Indiana, 1911; director of playground work, Minneapolis, summers, 1912-1913; Stout Institute, 1911-

MABEL H. LEEDOM, Chemistry.

City Normal School, Dayton, Ohio, 1894; Stout Institute, 1910; Columbia University. summer session, 1913. Teacher in public schools, Dayton, Ohio, 1895-1905: Stout Institute, 1910-

MARY M. McCALMONT, Chemistry.

West Minster College, New Wilmington, Pa.; graduate student, University of Omaha, Nebraska, 1911; University of Wisconsin, 1911-1912. Teacher in public schools, 1906-1907; principal of high school and supervisor of music, Woodville, Ohio, 1907-1909; city schools, Omaha, Nebraska, 1909-1911; Stout Institute, 1912-

MARY I. McFADDEN, Psychology, Public Speaking.

State Normal School, Oshkosh, 1897; University of Wisconsin, Ph. B., 1900; A. M., 1907; University of Chicago, Ph. M., 1901; Teachers' College, Columbia University, January, 1908-June, 1908. Teacher Grand Rapids high school, 1891-1892; principal, Menomonee Falls high school, 1892-1893; assistant principal, Oconto high school, 1893-1895; associate supervisor of practice, Oshkosh Normal School, 1901-1906; acting assistant professor of education, University of Kansas, one semester, 1906-1908; principal, Muskegon City normal school, 1909-1910; supervisor of practice, teacher of pedagogy and music, Sauk County Training School, 1911-1912; Stout Institute, 1912-

MARY BURT MESSER, Home and Social Economics.

Vassar College, 1901-1902; teacher in McKinley High School, Washington, D. C., 1902, 1903; head of English department, Washington College, 1907-1910; social worker in Association for Improving the Conditions of the Poor, New York, 1911, 1912; investigator of charitable institutions for Charity Organization Society, New York, 1912-1915; Stout Institute, 1916-

LILA MORRIS O'NEALE, Dressmaking, Costume Design, Millinery.

State Normal, San Jose, Diploma 1908; Stanford University, A. B., 1916; Teachers' College, Columbia University, B. S. and diploma in Household Arts Education, 1916. Teacher in Manual Training, Public Schools, Oakland, California, 1911-1912; teacher of Domestic Art, San Jose Normal School, 1913-1915; teacher of Domestic Art, University of California, summer session, 1913, 1914, 1915; Stout Institute, 1916-

RUTH MARY PHILLIPS, English, Public Speaking.

University of Wisconsin, B. A., 1904; graduate work, University of Wisconsin, 1905, and one semester, 1909. Teacher in high school, Lodi, Wisconsin, 1904-1905; teacher in high school, Black River Falls, Wisconsin, 1906-1910; Stout Institute, 1910-

RUTH VIRGINIA SIMPSON, Cookery.

Illinois State Normal University, 1909-1910; summer sessions, 1906-1907, 1908-1909; Teachers' College, Columbia University, 1911-1912. Teacher in public schools, LeRoy, Illinois, 1905-1908; teacher of domestic science, high school, LeRoy, Illinois, 1910-1911; high school, Lead, South Dakota, 1912-1913; Stout Institute, 1913-

CLARA G. TURNER, Household Management.

Normal School, Fredericton, N. B., 1902; Mt. Allison Ladies' College, N. B., 1906; Teachers' College, Columbia University, B. S., 1912. Teacher in public schools, New Brunswick, 1903-1904; teacher of domestic science, consolidated schools, New Brunswick, 1906-1911; Stout Institute, 1912-

LOUISE WILLIAMS, Microbiology, Physiology and Hygiene.

McGill University, 1907; B. A. and diploma from McGill Normal School; Columbia University, M. A., 1911, and master's diploma in teaching of biological science, Teachers' College, 1911. Teacher of classics and science, Dunham College, Quebec, 1907-1909; Stout Institute, 1911-

GENERAL INFORMATION

HISTORICAL SKETCH

The StoutTraining Schools for special teachers organized in 1903 as a branch of the Menomonie public schools.

Stout Institute incorporated as an independent school in 1908 under private control.

The Stout Institute taken over by the State of Wisconsin in 1911.

Kindergarten Department organized in 1899, discontinued in 1906

Summer Schools organized in 1906.

Homemakers' School organized in 1907.

Trade Schools for plumbers and bricklayers organized in 1908.

Stout Manual Training School erected in 1898, costing with equipment, $150,000.

Stout School of Physical Culture erected in 1901, costing with equipment, $93,000.

Building Trades School costing $50,000 erected and general heating plant enlarged, 1914.

Household Arts Building with library, offices, and auditorium, costing with equipment, $250,000, opened during the Summer Session, 1916.

PURPOSE AND ORGANIZATION

The school is organized primarily to prepare teachers of the industrial arts and of the household arts subjects. For administrative purposes there are two co-ordinated departments each taking care of its particular problems.

Students preparing for teaching in these fields are given a thorough grounding in the practical subjects of the industrial and household arts, related sciences, pedagogical subjects, English, economics, history and sociology. Every course has been organized with the definite purpose in mind of preparing teachers that know their subjects, and are able to teach them, and furthermore have an understanding and an appreciation of the larger aspects and responsibilities of their work.

VOCATIONAL EDUCATION

The Stout Institute has been designated by the State Board of Vocational Education as the training school for part time teachers of trades and industrial subjects and the first two years of the four year course as the course of study for such teachers. Special courses are offered for directors and teachers of vocational schools during the summer session.

LOCATION

The Stout Institute is located in the city of Menomonie in western Wisconsin, sixty-six miles east of St. Paul on the Chicago & North Western Railway. Menomonie is also connected with Mississippi River points by the Chicago, Milwaukee & St. Paul Railway.

COURSES

Courses are offered in both departments leading to the Bachelor of Science degrees in Industrial Arts and Household Arts. These courses require four years of work beyond the regular four year high schools. Two year courses are also offered in both departments, open to high school graduates, leading to a diploma. No diploma is issued to any person who has not been a student in residence for at least one year. Upon the completion of one of these courses, Industrial Arts or Household Arts, a diploma is issued, which by statute, is made the basis for the issuance of a life certificate, after two years' successful teaching in Wisconsin.

This certificate legally qualifies the holder to teach the subjects in which training has been taken, in the public schools of the state. The certificate is issued by the Wisconsin State Board of Examiners and is accepted in most of the other states. The diploma is given upon the completion of the first two years' work of the degree courses.

QUALIFICATIONS FOR ADMISSION

Graduation from a four year high school course, or equivalent preparation, is required for admission to each of the courses. The candidate must be at least eighteen years of age, and must be possessed of good health and physical energy, of refinement and good character. Testimonials of good character are required.

Students who have had normal or collegiate training are given credit for such of the required work in the Institute courses as they have satisfactorily mastered. Successful experience in teaching before entering Stout Institute, in most cases, reduces the amount of practice teaching required of the student.

ADVANCE ENROLLMENT

Persons who wish to enter the Institute should make application in advance for an enrollment blank, which should be filled out and forwarded to the school with two certificates of good character. While the advance enrollment is not a necessity, it is very much desired, as application for such enrollment prevents misunderstandings. A physician's certificate of good health and physical ability to carry on full work in the Institute, must be presented by each student when first entering the school.

BUILDINGS AND EQUIPMENT

INDUSTRIAL ARTS BUILDING

The first building to be erected of the group now used for instruction, was the Industrial Arts building. It is three stories high with light basement containing engine room, storage and work rooms. The ground floor plan is extended to a total area of 76 by 182 feet, and the annex contains the machine shop, forge shop, and foundry. All of these shops are well equipped.

The first floor contains wood turning shop, pattern making shop, demonstration room, and department offices. The second

floor contains the print shop with connecting rooms, lecture room, exhibit room, one of the school kitchens with pantry and connecting dining room. The third floor contains two drawing rooms, large lecture room, electrical wiring shop (in process of equipping), and physics laboratory.

The fourth floor is given over entirely to an armory and basket ball floor and for social uses. It has a steel arch trussed roof, providing a full area the size of the main building free from obstructions such as columns or partitions. Seats are banked up at the sides, accommodating five hundred people conveniently.

GYMNASIUM AND NATATORIUM BUILDING

The second building erected in this group was the School of Physical Culture. The building is 66 by 132 feet, and two stories in height. It contains a very completely equipped gymnasium with running track, measuring room, locker rooms, recreation room, and bowling alleys on its west side. Its east side is given over largely to baths, and contains a swimming pool, 30 by 70 feet, showers, and a well arranged series of rooms for Russian and Turkish baths. There are also locker rooms, dressing rooms, and social rooms in the east side of the building. The physical director's office is located near the main entrance.

BUILDING TRADES BUILDING

The third building erected for Stout classes was that given over to shops for teaching the building trades. It is 84 by 175 feet and two stories in height. A basement at one end of the building is entirely above grade level and contains the carpentry shop 36 by 80 feet. The ceiling of this shop is over twenty feet high and the shop is so constructed that a section of the outside wall 27 by 20 feet may be removed, making it possible to move a completed building directly to its proper site. At one end of the shop is a lecture balcony. At the other is a lumber balcony. A moist air dry kiln opens from the lumber balcony and extends into the mill, which adjoins the carpentry shop. The mill is very completely equipped with modern woodworking machinery.

A cabinet making shop is connected with the mill and provided with heavy benches, veneer press, sash and door clamp, and a complete glue room. Shops for plumbing and bricklaying are located on the ground floor at the north end of this building and extend through to the roof with balconies around three sides of each. In the plumbing shop a skeleton house two stories in height is erected and divided into rooms for the practice installation of plumbing fixtures. Space will also be provided on this floor for gas engine and automobile work and in the balcony for sheet metal work.

A middle entrance leads to the second floor corridor and opens onto a conveniently arranged lecture room. A large shop on this floor is given over to painting and wood finishing, with a varnishing room and fireproof storage for finishing supplies connected. Two large

rooms are equipped for architectural and machine drafting and contain an electric blue-printing outfit.

Elementary manual training is taught in a room especially planned for this work, opening upon this corridor. In addition to its necessary tools and benches, it contains several exhibits and conveniences of interest to the teacher of elementary work.

HOUSEHOLD ARTS BUILDING

The last building erected at Stout was planned principally for household arts classes. It is 126 by 228 feet and four stories in height, with a high basement. Two large elevators are provided for students' use, one at each end of the main corridor. They add greatly to the comfort and convenience of those taking work in cooking or science.

The Stout Institute library is located in this building on the main floor in the west wing. The room is large, well lighted, and well ventilated. In addition to the reading room, there is a magazine alcove, stack room, conference room, cataloging room, and repair room.

The general offices are located on the first floor and include the president's office, and those of the secretary, clerks, business manager, registrar, and telephone operator. Department offices, reception room, exhibit room and recitation rooms are also located on this floor.

Sewing, millinery, art needlework, and dressmaking rooms occupy most of the second floor. They are supplemented by lecture rooms, fitting rooms, and offices.

Kitchens and dietetics laboratories occupy most of the third floor, and are supplemented by dining rooms, pantries, and lecture rooms. Several types of kitchen arrangement have been installed in order to illustrate the advantages of each for public school installation.

Science laboratories occupy most of the fourth floor. These are well equipped, well ventilated, and well arranged. This floor also contains rooms for drawing and design, interior decoration, a large lecture room and smaller lecture rooms. A general refrigerating system takes care of this floor as well as the third.

SCHOOL EXPENSES

Tuition is one hundred dollars per year, one half payable at the beginning of each semester. A fee of twenty dollars per year is charged to cover the cost of materials used by students in the industrial arts department. Students taking work in any courses not required for graduation, are charged an additional fee to cover actual cost of material used in such courses.

LABORATORY FEES

Laboratory fees in the household arts department are given in connection with the outlines of the courses.

In addition to the laboratory fee, students are expected to pay for any breakage which may occur.

LIBRARY AND READING ROOM FEES

A fee of five dollars, payable at the opening of the school year, is required of each student.

All necessary text books are furnished from the loan text book library for the school year without any extra charge to students. The reference library is supplied with standard reference books needed to supplement text books in different subjects and with educational and technical periodicals adapted to the needs of the students.

REFUNDS

Students who are compelled to withdraw from the Institute by reason of illness, not due to poor physical condition or ill health existing before entering, are entitled to a refund of tuition from the date when notice is received of such withdrawal, to the end of the semester.

Students boarding in the dormitories are also entitled to a refund of whatever amount has been advanced for board beyond the date when notice is received of withdrawal. Refund for advance payment of room rent in the dormitories is allowed from the date when the room is again rented, and effort is made to secure an occupant at the earliest date possible. As books and supplies for which fees are charged have to be bought in advance in quantities necessary to supply the entire enrollment, no refund of fees is made in any case.

UNIFORMS

Young women attending the Institute are required to wear uniforms during the daily sessions. Men are required to wear white overalls and jumpers in the woodworking shops and brown overalls and working shirts in the metal working shops.

A gymnasium suit is required of each student taking physical training. This work is optional for students in the home economics department. It is required for all freshmen in the industrial arts department.

Circulars of information regarding uniform and gymnasium suits for women will be sent to all enrolled students.

DORMITORIES

Bertha Tainter Hall accommodates about thirty young ladies. The hall is furnished with all modern conveniences, the rooms are electric lighted, and heated both by direct and indirect radiation, thus assuring ample heat and good ventilation.

Tainter Annex accommodates sixty-six young ladies and is situated on the same grounds with Bertha Tainter Hall. It is thoroughly suited to the purposes for which it is planned. The rooms are all arranged in suites of study and sleeping rooms, each suite for two students.

The charge for room for the school year for each student is

seventy to eighty-five dollars, according to the size and location of the room. The charge for meals and a definite amount of laundry work for each student rooming in the halls is four dollars and fifty cents per week. A list of the different articles laundered weekly without additional charge is furnished each student.

The Institute authorities reserve the right to increase the price of table board a reasonable amount if advancing prices make it necessary.

Rooms in the dormitories will be available Saturday, September 14, 1918. Meals will be served beginning Sunday, September 15, 1918.

LIVING EXPENSES OUTSIDE THE DORMITORIES

There are no dormitory provisions for the young men. Good accommodations may be secured in private houses close to the school at from five and a half to six dollars per week.

THE SUMMER SESSION

Stout Institute summer sessions offer exceptional opportunities for supervisors or special teachers of manual training, domestic art and science, or physical training, and directors and teachers of vocational schools, to advance themselves along their special lines, either in technique or along the professional side. Superintendents and principals are finding in these summer sessions an opportunity for learning something of the content and method of school handwork. Grade teachers are perfecting themselves in special subjects through summer courses. Provision is made for outings and games so that a vacation may be combined with a summer course of study. The Summer Session catalog gives full information concerning the courses to be offered. The session opens July 29, 1918, and closes August 30, 1918. The following groups of courses are offered:

VOCATIONAL EDUCATIONAL

Three professional courses; thirteen shop courses. For directors and teachers of vocational schools receiving state and federal aid.

INDUSTRIAL ARTS

Twenty-two Courses. For supervisors and teachers of industrial arts in all grades of schools.

HOUSEHOLD ARTS

Fifteen Courses. For supervisors and teachers of household arts, for dietitians, and for institutional directors.

THIRD AND FOURTH YEARS' WORK

Seven Courses. For Stout graduates and others studying for the B. S. degree in Industrial Arts and Household Arts.

PHYSICAL TRAINING

Three Courses. For athletic coaches and others interested in athletic games and swimming.

WAR EMERGENCY

For instructors in military drill, women in the house, Red Cross workers, and food demonstrators.

THE DEMAND FOR GRADUATES

The demand for graduates of Stout Institute as teachers of industrial arts and household arts and in continuation and vocational schools is steadily increasing year by year. Graduates have taught or are teaching in every state in the Union, except three, and in Canada and Porto Rico.

The number of schools in which industrial arts and household arts are being taught is rapidly increasing and the demand for well-trained teachers of these subjects is greater than ever before.

The officers of the Institute are glad to recommend teachers to school officials who are seeking competent teachers of vocational schools, of manual training, industrial arts, and domestic art and science. In making recommendations every effort is made to name candidates who by training, temperament, personality, and experience are adapted to the demands of the position to be filled. The more complete and definite the information furnished as to the kind and amount of work required, and the salary to be paid, the better they are prepared to select the person most likely to give satisfactory service. They prefer to make no recommendation unless they feel confident that they can name a candidate who will succeed.

While the officers of the Institute never guarantee positions to students upon graduation, they do everything in their power to assist graduates to positions they are qualified to fill.

SCHOOL YEAR

The school year is thirty-six weeks in length, beginning September 16, 1918, and ending June 6, 1919. Students should arrange to enter at the beginning of the school year if possible. When this is not possible students may enter at the beginning of the second semester.

The summer session is five weeks in length, beginning July 29, 1918, and ending August 30, 1918.

Address all correspondence regarding courses of study or general work of the institute to

L. D. HARVEY,
President.

The Stout Institute,
Menomonie, Wisconsin.

COURSES OF STUDY--1918-1919

INDUSTRIAL ARTS DEPARTMENT

FOUR YEAR COURSE

The hours indicated are semester hours required.

One hour of recitation or two hours of shop or laboratory work with such outside preparation as may be necessary, once a week for eighteen weeks, constitutes a semester hour.

First Year.

	Hrs.
Shop Work and Drawing	20
Psychology I	5
English Composition	5
English, Directed Readings	1
American History	5
Military Drill	R
Gymnastics	R
	36

Second Year.

	Hrs.
Shop Work and Mech. Drawing	20
Organization of Industrial Arts	2
Teaching Industrial Arts	3
Observation and Prac. Teaching	4
English, Directed Readings	2
Public Speaking	2
Hygiene and Sanitation	1
Citizenship	2
Military Drill	R
Gymnastics	R
	36

The twenty hours of shop-work in the first year will be in three or more of the following subjects, to be determined by the director.

Elementary Woodwork
Carpentry
Bricklaying
Mechanical Drawing
Electrical Work
Wood Turning
Plumbing
Printing
Architectural Drawing
Sheet Metal Work

The twenty hours shopwork in the second year will be in three or more of the following subjects, to be determined by the director.

Mill work
Wood Finishing
Forging
Machine Work
Gas Engines and Automobile Repairs
Cabinet Work
Pattern Making
Foundry Work
Machine Drawing

Third Year.

	Hrs.
Shop Work, Drawing and Design	10
Advanced Psychology II	2
Vocational Education	2
English	3
Modern History	3
Modern Industries	2
Mathematics	4
Sociology	3
Physics	5
	34

Fourth Year.

	Hrs.
Shop Work and Drawing	10
Administrative Problems	2
Strength of Materials	3
Industrial Chemistry	4
Economics	5
English	2
Industrial History	3
Principles of Education	3
Thesis	2
	34

The ten hours required shop-work and drawing in the third year, and in the fourth year will be a continuation of the shop-work offered in the first and second years.

In the fourth year five hours of additional shop-work may be substituted for the same number of hours of other work, when approved by the director.

HOUSEHOLD ARTS DEPARTMENT

FOUR YEAR COURSE

First Year.

	Hrs.
General Chemistry	5
Food Chemistry	4
Food Study	3
Psychology I	5
English	6
Drawing and Design	3
Plain Sewing	4
Textiles	1
Cookery	5
	36

Second Year.

	Hrs.
Microbiology	4
Dietetics I	4
Household Management	4
Home and Social Economics I	4
Interior Decoration	3
Dressmaking	4
Cookery	4
Organization and Management	1
Practice Teaching	2
English	2
Laundry	1
Physiology and Hygiene	3
	36

Third Year.

Textile Major.

Qualitative Analysis	3
Costume Design	3
Millinery	2
Chemistry of Textiles	3
Applied Design	4
	15

Required.

English	3
Psychology	2
Modern History	3
Household Physics	3
Public Speaking or Citizenship	2
Home and Social Economics II	4
	17

Food Major.

Physiological Chemistry	5
Experimental Cookery	3
Dietetics II	4
Qualitative Analysis	3
	15

Fourth Year.

Textile Major.

Ad. Dressmaking and Drafting	3

Required.

English	2
Principles of Education	3
Public Health Problems	4
Current History	5
Teaching Household Arts	2
Thesis	2
	18

Food Major.

Food Analysis	3

Nine to eleven credits to be elected from the following list: Students taking the food major may elect from the textile major. Students taking the textile major may elect from the food major.

Extension Work	2
Home and Social Economics III	4
Institutional Management	3
Sociology	3
Housing Problems	3
Administrative Problems	2
Economics	5
Vocational Education	2

DEGREES

The degree of Bachelor of Science in Industrial Arts is conferred upon students completing the Industrial Arts course and the degree of Bachelor of Science in Household Arts upon students completing the Household Arts course.

ADVANCE CREDIT

Advance credit will be given for equivalent work done in colleges of recognized standing. The question of equivalency will be determined by the Faculty Committee on advance credit.

Students seeking credit for work done in other institutions, must present evidence of honorable dismissal from such institutions, and a certified record from the institution showing the number of semester hours work in each subject, together with a copy of the catalog of the institution showing the courses taken.

TWO YEAR COURSE

The work required in the first and second years constitutes the two-year course. Upon its completion a diploma is given, which entitles the holder to a state license to teach either the industrial arts or the household arts in the public schools of the state for two years. Upon the presentation of evidence of two years' successful teaching, a life State certificate is issued by the State Board of Examiners.

ONE YEAR INDUSTRIAL ARTS COURSE

During the year 1918-1919 a special one year course in industrial arts will be offered to give intensive training in those lines of work most general in industrial arts departments in graded and high schools. Its purpose will be to prepare teachers who may be able to do satisfactory work as assistants in these departments, taking the place of more broadly trained teachers who have entered the government service, thus creating a great shortage of industrial arts teachers. This is a war emergency course and will be discontinued as soon as the close of the war makes it possible to secure teachers with more extended training. Full credit will be given for work taken in this course, to apply on either the two year, or the four year course.

OUTLINES OF COURSES

INDUSTRIAL ARTS DEPARTMENT

COURSES IN EDUCATION

PSYCHOLOGY I.

Fundamental principles of psychology and their application to the problems of the class room constitute the work of this course. The psychology of attention, habit and will are the phases which receive special attentin. Principles, both of psychology and pedagogy are studied and discussed in terms of definite application to concrete teaching problems. Credits: 5

ORGANIZATION OF INDUSTRIAL ARTS COURSES

Problems of organization of courses and shops include the formulation of purposes, arrangement of courses and plans for school shops. An analysis of subject matter arranged by grades begins with primary hand work and covers upper grade shop work, high school courses, mechanical and free hand drawing, art crafts work, and vocational courses. Study is made of equipment and maintenance of an industrial arts department, considering: kinds, quantity, and cost of tools, benches, cabinet work, and miscellaneous supplies. The selection and installation of equipment for various lines of school work is made a feature of this course. Special attention is given to matters of arrangement of shops, the planning of an equipment, lighting, storage of supplies, and consideration of economy in the purchase of a school outfit. A study is made of details of business administration and general management of the affairs of an industrial arts department in a public school system. Credits: 2

TEACHING THE INDUSTRIAL ARTS

The purpose of this course is to bring about a definite realization of the principles of teaching and their application to industrial arts subjects. The effective organization of subject matter for daily class or shop teaching and the methods of presentation are the phases on which stress is placed. Attention is also called to shop and class management as a factor in efficient instruction.

The scope of the course is as follows: first, a clear, concise statement of the problem of teaching in which the function of the school and the teacher is shown; second, the factors that enter into the teaching process and which must be taken into account by the teacher; third, the fundamental laws of teaching and their application to the industrial arts problem; fourth, types of lessons and suggestions offered by each to the industrial arts teacher; fifth, class room and shop methods including the organization of subject matter for instructional purposes and the assignment and distribution of students and work during the class period; sixth, standards for testing results of class room or shop procedure cover-

ing schemes of grading and the determination of the worth of subject matter and method. Credits: 3

PRACTICE TEACHING AND OBSERVATION

As a requirement for graduation, every student must have eighteen weeks of practice teaching. Proof of successful teaching experience may at the discretion of the head of the department reduce this requirement. The practice teaching schedule is arranged in periods of nine weeks' duration, thus permitting students to gain experience in two different lines of work if it is so desired. All practice work is in connection with the public school system and ranges from the first grade handwork to the fourth year high school shop courses. The teaching is done under the direct supervision of the special teacher of the subject in which the instruction is given. Before taking charge of any class the student teacher must prepare and submit for criticism a lesson plan indicating the proper order of procedure for each day's work.

Before beginning practice teaching and as a preparation for it, the student systematically observes the work of experienced teachers. Every teacher in the Institute bears in mind that it is his work to train his students to teach, as well as for him to do good teaching. In doing this, he calls attention to his mode of presentation of subject matter; to the pedagogical principles he applies in his class work, and to the manner in which the application is made; and to what modifications in methods of applying these principles must be made to adapt the instruction to the capabilities of less mature students. The student, as he comes in contact with different teachers, and in his class work in different subjects, is thus consciously observing the work of skilled teachers and studying the art of teaching, through the concrete application of important pedagogical principles in the teaching of a wide range of subjects.

Credits: 4

PSYCHOLOGY II

This is an advanced course in educational psychology. The more important of the topics considered in Psychology I are again taken up and a broader treatment given. The subject is considered not only from the standpoint of the education of the teacher for teaching but from that of the education of the individual as a member of society. Credits: 2

VOCATIONAL TEACHING

The emphasis in this course is placed upon the historical development of industrial education, studies of specific types of schools, their purpose and organization, State and Federal legislation, and the vocational guidance movement. Lectures, assigned readings, individual reports and assignments are utilized to these ends. The outline of the work covered is as follows: (1) History and development of the industrial education movement in the United States, including the influence of European systems, causes for its

rapid growth in the United States, defining of terms growing out of the development, and analyses of the various purposes of the different movements. (2) Study of specific types of schools, their purposes and organization, including the trade, continuation, apprentice, prevocational, and part time schools and the technical and junior high schools; the industrial teacher and his training. (3) The vocational guidance movement, including its development, the place of vocational and individual analyses, the vocational counselor, placement work, and methods of organizing guidance work for a school system. (4) Recent progress in industrial education covering the survey as a factor, studies of selected surveys, state and national legislation, and the present trend of the entire movement. (5) General sources of information pertaining to the subject. Credits: 2

PRINCIPLES OF EDUCATION

The aim of the course is to concentrate upon the fundamental factors and tendencies of modern education. To this end the work centers around the biological bases of education, the various aims of education, the special values of education, the educational values of the various groups in the curriculum such as the humanities, the natural sciences and the vocational subjects, the organized and unorganized educational agencies, their contact with the individual and the manner in which he is most helpfully affected by them; the necessity for applying fundamental psychological principles in the work of organized educational agencies, in order to develop right habits of thought and action, and such an attitude of mind as will make the influence of the unorganized educational agencies most effective in the education of the individual. Credits: 3

ADMINISTRATIVE PROBLEMS

This course includes a survey of several problems of educational administration of interest and value to the specialists in vocational education and in the practical arts. The following topics represent the type of work covered: Systems of organization in public schools and in higher institutions, adaptation of modern efficiency studies to such schools, the school budget and financial administration, school officials and their supervisory duties, training teachers in service, planning and management of the school plant, publicity and promotion work, consideration of student needs and interests. Credits: 2

COURSES IN ECONOMICS AND SOCIOLOGY

ECONOMICS

The aim of this course is not to cover the entire field of economics, but to acquaint the student with its basic principles in order that he may have a more intelligent understanding of the actual applications of economics to industrial conditions. Emphasis is given this phase of the work. Text books are used and ample ref-

erence material is at hand to give the student a broad view of the subject. The more important topics taken up are: the nature and scope of economics; characteristics of the present economic system; evolution of economic society; consumption; production; value and price; monopoly; money; money and banking; distribution; industrial organization; wages; labor problems; legislation in regard to industrial conditions; relation of the state to industry.

Credits: 5

MODERN INDUSTRIES

This work aims to acquaint the students with the fundamental facts concerning the organization and methods of production employed in typical important industries of the present time. The course is developed around the following: metal industries; lumbering and allied industries; papermaking and printing industries; food and kindred industries; textile and allied industries. The special subjects under each group are, sources and classification of raw materials; transportation of raw materials; transformation or manufacture of raw materials; the economics of the industry and the problems of distribution of finished products. Credits: 2

SOCIOLOGY

The aim of this course is to secure such knowledge of sociological principles as will enable the student to study intelligently the present conditions in society falling under these principles. This will involve the study of the conditions under which society has developed and how these conditions have been modified in the past and may be still further modified in the future for the betterment of the individual in society. Credits: 3

CITIZENSHIP

The aim in this course is to develop a knowledge of what is essential for high quality American citizenship. It will consider not only the privileges and opportunities resulting from citizenship but will take into account and emphasize the reciprocal duties and obligations involved in citizenship. As ours is a government by the people, the individual's responsibility in this government will be studied with care. As ours is a government of the people and for the people, the rights of the people under that government will also be considered. Credits: 2

COURSES IN SCIENCE AND MATHEMATICS

APPLIED PHYSICS

The aim of this course in applied physics is to make practical application of the principles of physics to industrial lines of work. These principles are demonstrated and worked out through laboratory work and the use of commercial apparatus and machinery in actual operation. Credits: 5

MATHEMATICS

Such portions of arithmetic, algebra, geometry, and trigonometry as are useful to the teacher of industrial arts are studied and their application in industrial operations taught. Credits: 4

INDUSTRIAL CHEMISTRY

This course treats the subject from the practical standpoint and through lectures, demonstrations, and laboratory work endeavors to present scientific information pertaining to the common industrial materials. Following a brief study of the fundamentals of chemistry, a study is made of the composition and characteristics of the various irons and steels, the corrosion and oxidation of metals; the composition and setting reactions of mortar and cement, changes in cement and concrete due to heat and other causes; chemistry of paints, oils, stains, and varnishes; tests of lubricating oils and compounds, treatment and preservation of rubber and leather belting; composition of various kinds of glue; the chemistry of the storage battery, and the composition, decay and preservation of wood. Credits: 4

STRENGTH OF MATERIALS

The work of this course is organized around the materials of the machine and building trades. Standard and special tests are carried out with the following materials: various grades of iron and steel; building materials such as cement, concrete, stone, and brick; woods of various kinds; types of construction involving wood and metal; holding power of glue, screws, nails, and other fasteners; foundry materials such as molding and core sands and binders; rubber, leather, and cotton belting. Credits: 3

COURSES IN HISTORY

AMERICAN HISTORY

The purpose is to give the student a familiarity with American history in order that he may better understand and appreciate the economic and political changes that are taking place today. Special emphasis is given to events that have an industrial bearing and to present day conditions. The more important topics taken up are: separation of the Colonies from England; the new Republic; National versus sectional interests; slavery and the West; events leading up to the Civil War and results of the Civil War; the United States since the Civil War; the United States as a World Power. A text book is required and the student is expected to prepare papers upon assigned subjects from time to time. Credits: 5

MODERN HISTORY

This course is aimed to give the student sufficient understanding of the most important events during the past hundred years in order that he may better understand the changes that are taking place in Europe today. The work is so arranged that some time is given to a study of present day conditions in Europe. The following topics are studied: the reconstruction of Europe at the Congress of Vienna; Europe after the Congress of Vienna; poli-

tical changes in various European countries between 1815-1848; the unification of Italy and Germany; the German Empire; France under the Third Republic; the political and social changes taking place in England during the nineteenth century; the extension of the British Empire; Russia in the nineteenth century; Turkey and the Eastern question; expansion of Europe in the nineteenth century; the world war and its causes. A text is used and ample reference material is furnished. Credits: 3

INDUSTRIAL HISTORY

This is a course in American history with especial emphasis laid upon the industrial development and is in no way a duplication of any other work being offered. The first part of the course takes up the growth and development of our present industrial system, and is followed by an intensive study of the present day situation. The topics studied are: the industrial development under British control; industrial aspects of the Revolution; National beginnings of industry; industrial consequences of the war of 1812; the epoch of expansion; internal improvements and effect upon the industrial development of the country; economic causes and results of the Civil War; the protective policy; expansion of commerce; the development of a strong financial system; governmental control of public utilities; the organization of labor; relation of the government to industry. A text book is used and ample reference material is provided. Credits: 3

COURSES IN ENGLISH

ENGLISH I

Presentation of such phases of composition work as will give the student a command, both in speaking and writing, of simple, correct and clean-cut English, is the aim of this course. The special topics considered vary with the needs of particular classes. In general these topics may be designated as grammatical forms; sentence structure; choice of words; social and business correspondence; the preparation and organization of literary material. The work is closely correlated with that in other departments and is based on long and short themes, talks, discussions, and papers presented by members of the classes. Credits: 5

ENGLISH II

The purpose of this course is to gain an understanding of the essay, of the poem, of biography, and of fiction as forms of literature. A study outline is followed for each classification. A further aim is to read extensively from a list of standard American and English writers of these different forms of literature. Individual interpretations are given through readings and critical reports.

Prerequisite, English I Credits: 2

ENGLISH, DIRECTED READINGS

This work is given for the purpose of developing an interest and taste in the reading of good literature of various kinds.

The student's present interests will be made the basis of selection in beginning this course. It will be the teacher's aim to broaden and direct these interests and to aid the student in selecting reading material from lists of books selected to serve a wide range of interests. The class work will aim to develop facility and accuracy of expression through oral and written reports of the reading done during the week. Credits: 5

PUBLIC SPEAKING

The aim of this course is to present the requirements for easy and effective public speaking and to master these requirements through practice and training before both small and large groups. Drills in enunciation, pronunciation and on memory selections are given. Original productions are emphasized. Criticisms based on habits of the body and vocalization are made important. Suggested subjects are listed. Organization of these subjects in outline form is taught and practice given in oral presentation.

Prerequisite, English I Credits: 2

HYGIENE AND SANITATION

This course treats the subject from the standpoints of personal hygiene and sanitation and school and shop hygiene and sanitation. The topics developed include the health of adolescents, nervous disorders and their prevention, diet, narcotics, fatigue, posture, care of eyes and personal hygiene, proper care and ventilation of school rooms, infectious diseases and their symptoms, disinfectants, first aid treatment, industrial hygiene. Credits: 1

PHYSICAL TRAINING

The work in the gymnasium is given first, for corrective purposes, and second, to enable the students to direct and conduct this work in high school. Many calls come for the industrial arts teacher to combine with gymnasium and athletic work. The students are given a wide range of work on the floor in marching, use of Indian clubs and wand, in drills, games, work on the bars, ladders, horses, rings, and mats. Required without credit.

MILITARY DRILL AND SCIENCE

The purpose of this work is two-fold, first to give the student the fundamentals of drill and thus prepare for entrance into service, if called; and second, to enable the students to handle this in the high school should such work be required. The work includes the school of the soldier, squad, and company in both close and extended order, physical drills, and guard duty. Text book work and recitations form a part of the course. Required without credit.

COURSES IN SHOPWORK AND DRAWING

The shopwork and drawing in the first and second years will include six or more subjects, to be determined by the director. The work offered in the third and fourth years will be a continuation of the first and second years' work.

CREDITS FOR SHOP COURSES

Each shop course here listed requires two and one half semester hours of work, and 2½ credits are allowed for its completion. It is possible for students to take more than the two and one half semester hours work in a single subject if they desire to specialize in that subject. In such cases credit will be given for the full number of semester hours given to the subject.

DRAWING

MECHANICAL DRAWING

The course includes the making of a set of drawings to enable the student to acquire proficiency in the use of instruments. The principles of motion and time study are stressed in the development of the draftsman's technique. The scope of the work covers a study of drafting conventions, methods employed in drafting room practice, and an acquaintance with the principles of projection as applied to the making of shop drawings. Hints on teaching the subject in public schools are given.

MACHINE DRAWING

The purpose of this course is to teach the reading and making of working drawings of machines. The first experience is gained in the making of freehand sketches of selected castings and simple machine parts, fully dimensioned. These sketches are made in orthographic projection, in perspective, and isometric. Special thought is placed on the selection of the proper views, the location of views, and the use of conventions. Working drawings are then made from the checked sketches, stress being placed on the proper methods of drawing, using of instruments, time element, and the professional aspects. Detailing and assembling of machines is taken up after students gain ability to make simple working drawings. Students are sent to the shops to make sketches of machines. The working details and assembly drawings are then made in the drafting room. The drawing of gearing, cams, crank motions, and special shop problems is taken up during the latter part of the course. Tracings of many of the problems are also made and blueprinted. The professional side of the course includes analysis of every plate in steps of logical procedure. Students prepare lesson plans of selected problems and make class demonstrations. Lectures are given from time to time on allied subjects, and include information on the equipment of drafting departments, materials and supplies, the organization of courses in drawing, class management, text books and literature of drafting, the relation of drafting to industry, and the vocational aspects in drafting.

ARCHITECTURAL DRAWING

Commencing with very simple architectural details the work develops into a study and sketching of all construction involved in the moderate priced frame house. Problems are given in lettering,

molding design, shades and shadows. Following the elementary work a moderate priced house is planned for a designated lot. All necessary drawings and details are executed and traced. Specifications are drawn up for the problem and the price is estimated. Interior and exterior design are studied as they become involved. Modern drafting office practice and methods are used throughout the course.

SHEET METAL DRAFTING

This is intended especially for students taking the course in sheet metal work, but is open to all. It covers the development of surfaces and laying out of projects for the sheet metal work. Students are made familiar with the drawing instruments and their proper use, straight line development of cylinders and prisms, radial line development of cones and pyramids and working layouts for practical production. Given in the summer session, 1918.

WOODWORK

ELEMENTARY WOODWORK

Elementary woodwork includes such tool processes and construction work as may be given to public school classes in the fifth, sixth, seventh and eighth grades. A course of projects and exercises suitable for these grades is made. In connection with the working out of these problems the students make a thorough study of methods of teaching, courses of study, and equipments necessary or desirable. Students also begin to solve some of the problems of teaching by preparing and presenting lessons or demonstrating tool processes as they would be given to a public school class.

WOODTURNING

Wood turning is given for teachers of high school classes and covers exercises planned to give a familiarity with both turners' and pattern makers' work. Students are introduced to the use of power machinery and are required to take proper care of lathes and tools. After getting a brief acquaintance with the problems of elementary wood turning, students are given advanced work and master some of the difficulties of more advanced wood turning. A series of exercise pieces is made in soft wood, bringing in the turning between centers of cylinders and cones, grooves, beads, and reverse curves. This is followed by face plate and chuck work. Hardwood applications of turning exercises include tool handles, mallets, rings, and larger problems. Discussions cover the selection of equipment, planning of courses in wood turning, and methods of teaching the subject.

CABINET WORK

This course includes such work as is usually given in the eighth grade and the high school and presupposes for the student at least an elementary course in woodworking. Development of skill in handling tools and materials combined with a thorough study of

the related teaching problems constitutes the general aim of the course. The work is considered under two heads: (a) box construction and (b) mortise and tenon construction. Under the first head the various types of box construction are studied and one box is made. This study includes a consideration of the various joints used, methods of fastening, design, and finishing. Under mortising and tenon constructions we note strength of this joint as compared with others, methods of laying out, working down and fitting, gluing and assembling. The umbrella rack, small table, plant stand, foot stool, and taboret are typical projects made. Each student selects or designs his project with the advice of the instructor. Advanced work takes up machine and commercial methods of production applicable to school equipment.

MILL WORK

This course is provided for the purpose of instruction and practice in the care and use of woodworking mill tools and machinery, and especially in methods of precaution against accidents in operating. The work is offered principally to prepare manual training teachers for their personal use of such machiney, in schools where they are expected to be entrusted with the care and operation of woodworking machines. A large mill equipment furnishes an opportunity to do one or several of the following lines of work such as may be created by the needs of the institution. Work is begun with the cutting of stock for projects in other classes and followed by figuring out mill bills, cutting stock, laying out, mortising, tenoning, sticking or moulding, relishing, grooving, gaining, and rabbeting, as demanded in the making of such work as lockers or desks, tables, and work benches of various kinds, built-in cabinet work, interior finish, stair work, sash, doors, screens, and mouldings. Any of the above include only the mill end of the production by the use of power machinery, unless by request on the part of individuals who would like to do some of the assembling and bench work which follows milling. In addition to this is offered such work as is required in the upkeep and care of tools and machinery, namely: jointing, gumming, swageing, setting, filing of saws; keeping jointer knives and other edge tools sharpened; belt lacing.

WOOD FINISHING

The work offered in wood finishing covers in part the making of a series of panels of different widths. The surfaces are planed, scraped, sand-papered, stained, filled, and polished, showing the method and value of different types of finish as pieces of regular sequenced work. In addition to this, students are given practical work in painting, interior finishing, and the finishing of furniture. Lectures are also given covering the following: Preparation of the wood; planing, scraping, and sanding; stains and staining; production and use of different stains; formulae for making water and spirit stains; fuming; fillers and their composition and use, methods of filling hard and soft woods, open and close grained woods; wax and its character and preparation, different uses; rubbing with sand paper, with pumice stone; polishing, use of curled hair, use of steel wool; selection and care of materials; commercial practice in wood finishing; suggestions for handling wood finishing in school shops.

PATTERNMAKING

The patternmaking courses take up the technical details of the trade in a simple way. The student makes a number of exercises embracing the fundamentals so that he may be prepared to teach them to high school or continuation school students. The actual work consists of bench and machine woodwork and woodturning. Instruction and demonstrations cover the use of machine and hand tools, applications of patternmaking principles, methods of construction, methods of turning, and methods of finishing the exercises. Advanced or individual problems are assigned as soon as the student develops special ability. The work is limited only by the amount of time the student has available.

MACHINE TRADES

MACHINE SHOP

The beginning of the course is so arranged that each man will progress from one machine to another and will have done enough work on each to have an acquaintance with the scope and the typical processes of each. The exercises for the elementary work are selected to embody the fundamental principles incident to the machines. For the advanced work the exercises made are selected with the idea of being typical of certain processes; fortunately a large number of these are also of practical value. Small tools, as milling cutters, reamers, taps, gauges, forming tools, jigs, and templates are made. Also parts of steam engines, motors, and the machinery of the shop are made. In some cases the original exercises are designed and the tools necessary for the construction of the exercise by a class are designed and built.

FORGING

Before any practical work is attempted the student masters certain preliminary matters such as building and care of fire, position at anvil and forge, proper handling of tools, care of equipment and room. In all the problems from the most elementary ones through tool and art smithing, there is a definite relation existing between each. Each one depends upon the one before for certain information, and at the same time offers certain new information to the student. The acquiring of skill in the manipulation of iron and steel and the handling of tools is necessary, but the ability to teach others the same things is equally as important to the industrial arts teacher. Time is given to the development of methods of teaching forging, planning of courses, the relationship of problems in regard to tool processes and applications. From time to time

students give sample demontsrations of problems and give reports upon the text used, upon reference readings, and upon current topics of interest to the metal worker. Study is also made of the selection, care and maintenance of equipment.

FOUNDRY

The aim of this course is to train the student so that he will be able to handle the foundry work that is ordinarily given in a high school. The making of typical molds is taught, and because of its importance, cupola practice is given a large amount of time. Castings are poured in plaster, lead, aluminum, brass, and iron. Core making and dry sand molds open up the field and show the possibilities of this work. A large assortment of patterns is available for use so that at no time need the work become monotonous. Castings of the exercises for use in the machine shop are made in large numbers, as well as castings for parts of machines and repairs. While molds of things of no practical value are often made, these molds are seldom poured. The theoretical work is covered by short talks at the start of each period, the subjects following as closely as possible the work being done.

BUILDING TRADES

CARPENTRY

The aim of this course is primarily to teach the fundamental tool processes of carpentry and the elements of frame building construction. These tool processes are arranged in a graded series of problems, designed to afford an opportunity for the development of skill in tool manipulation and familiarity with common materials of carpentry and their uses. In order that the work may be a direct preparation for building operations the materials are full size, the tools such as are found in a carpenter's kit, and the exercises the same as those encountered in practical work. Following the mastery of the fundamentals the work of the course consists of the actual construction of a house, cottage, garage or smaller structure, either on a permanent site or in the shop.

BRICKLAYING

Elementary bricklaying is designed to cover problems of actual construction suitable for industrial arts or vocational schools. Students capable of doing the advanced work are given more difficult details of construction and work upon larger problems. After the necessary details are made with proper standards of execution, original designs may be built by students who are capable. Suggestions are given during the course regarding the handling of bricklaying in schools, the place for shop talks, applied mathematics and design. References are read and reports required on the same. From time to time discussions of practical problems are taken up.

PLUMBING

Teachers of industrial arts are given an acquaintance with some of the plumbers' problems in order that a better idea may be

had of general industrial conditions and better provision made to meet these conditions in industrial arts courses. The work is largely practical shop work with suffcient time given to the theoretical side to make the reason for each step perfectly clear. Soil pipe work which makes up the drainage and ventilation part of a plumbing installation involves the use of the gasoline furnace, the construction and operation of which is taken up in detail. Problems cover the making of vertical and horizontal joints, the running of lines of soil pipe, applying the tests, and finally connecting with waste lines from fixtures. The soldering copper is explained and the reason for care as to heats and tinning made clear. Exercises in making sheet lead seams, the cup, overcast and invisible joints lead to the required proficiency in handling this line of work. Fixtures are set up and installed complete, with waste, vent, supply, and circulation pipes. This course will not be offered in the year 1918-1919.

GENERAL

PRINTING

The work of this course consists of study, observation, and practice in the various processes in the print shop with a view of forming the proper habits of work and securing an appreciation of standards of printed product. The work at the case includes the use of the composing stick, emptying the stick on the galley, taking proofs and correcting the type matter. After the corrections are made, the composition is locked in a chase, and the form put on one of the presses and stock fed through the machine. The binding processes include folding, gathering, stapling, gluing, pasting, tableting, punching, and perforating as are required by the particular jobs. The professional part of the course includes a study of equipment and supplies for various school needs, and the kinds of courses which may be offered in different curricula. The correlation between printing and other academic subjects of public school work is illustrated during the progress of the course.

GAS ENGINES AND AUTOMOBILE CONSTRUCTION AND REPAIRS

The principles, construction and operation of the two cycle and four cycle gas engine, through the use of text books, charts and a study of engines of both types form the bases of the course. Special attention will be given to ignition systems. Students will dissemble all important parts of the automobile chassis, make repairs, adjust and reassemble the parts. In connection with this work he will make a study of the parts with which he has worked. Note books will be kept in which will be entered each day the results of his work as he proceeds Definite problems will be assigned for solution and record.

SHEET METAL WORK

The course covers such fundamental exercises as soldering, brazing, wiring, and hemming as a preparation for their use in actual projects, exercises in layout work and cutting straight line and radial line developments, applications of this work to finished products for home use, products to be used by the school, commercial work such as making boxes and lining tanks, roofing and spouting piping, heavy sheet metal work such as doors, ventilators, cornice work and moldings, skylights, and general repair work. Given in the summer session, 1918.

OUTLINES OF COURSES

HOUSEHOLD ARTS DEPARTMENT

WAR WORK FOR WOMEN

Since the beginning of the war all courses in clothing and foods have been modified to meet the needs of the time. It is the aim of The Stout Institute to be of the utmost service through its faculty and students. Women trained in Home Economics have greater opportunities for patriotic community service than almost any others.

FOOD CONSERVATION

Every course in foods, from the Eighth grade practice classes to the advanced work in experimental cookery stresses the present problems, teaches the use of substitutes, and drills upon the principles and practices of food conservation so that students possess the knowledge and ability, coupled with enthusiasm of purpose, which enables them to be most intelligent food administration workers. A special course in the Present Food Problem, given by Miss Kugel, is required of all students.

DEMONSTRATION WORK

The Stout Institute co-operates with the County Council of Defense and the Food Conservation committee by volunteer work of faculty and students in giving demonstration lectures throughout the county. Students are thus given an opportunity for service and also to gain valuable experience and practice in this field.

WAR KITCHEN

The Stout Institute, co-operating with the Council of Defense, will maintain a war kitchen for canning and food preparation during the fall months. Qualified students will be given an opportunity greater opportunities for patriotic community service than almost to have charge, at stated times, if they so desire.

RED CROSS WORK

The Institute has a splendid working auxiliary of the local chapter which has headquarters in the east wing of the second floor in the Household Arts building. This permits of close co-operation and articulation between auxiliary and chapter. Red Cross hospital garments and garments for Belgian relief, supplement or are substituted for the outlined work in clothing courses whenever possible. Special classes in surgical dressings, taught by the faculty of the Institute are planned for students. This work includes the making of the standard gauze and muslin dressings as prescribed by the national organization. Opportunity will be offered for shop work, and the student will be awarded the usual insignia and certificate, according to the regulations of the central division.

JUNIOR RED CROSS

Menomonie's pubilc schools have a progressive and effective Junior Red Cross organization. The work and activities in sewing are under the direction of Miss Holman, supervisor of Domestic Art practice work in The Stout Institute. Thus practice teachers conduct the work in the public school classes. Miss Holman will give special lecures on the organization, activities, lines of work and methods of the Junior Red Cross.

FOOD PROBLEMS

It is imperative that all intelligent people, and Household Arts teachers more than all others, be thoroughly conversant with the present problems of our food supply, in order the better to aid in its solution. With this in mind, this course is planned. It is based, in fact, on outlines of work prepared by the United States Food Administration. The work will be modified to meet conditions as they exist at the time of presentation. The field to be covered consists chiefly of the following: the world supply of staple foods, areas of production, pre-war production and consumption; effect of the war on production; causes of shortages where they exist; effect of the transportation problem upon food supply; economic aspects of the war in relation to food supplies, production and prices; regulations and rationing in European countries; the organization of the United States Food Administration, its purposes, functions and results; present food situation; responsibility of the United States to the allies for food supplies; responsibiliy of individuals, especially Household Arts teachers; media through which teachers may work effectively: such existing organizations as the Council of Defense, Woman's Committees, food conservation committees; methods of instruction for groups other than students; war kitchens; the demonstration lecture; educational propaganda; biblilography of food conservation and the food problem. This series of lectures will be given in the Household Arts department in connection with cookery classes. Credits: 2

OUTLINES OF HOUSEHOLD ARTS COURSES

ELEMENTARY COOKERY I

This first course in cookery is based upon a study of food principles. The composition and nutritive value of food materials and the processes of cookery best adapted to each class of foods are discussed and each principle is illustrated by the preparation of simple foods and combinations of foods. The practical work is designed to acquaint the student with all the fundamental processes of cookery and the most attractive ways of serving. It is planned to secure a thorough understanding of the theory and method involved in the cookery of the more essential foods rather than to cover the whole field of cookery. Sufficient repetition of processes is given to secure a fair degree of skill in maniplation of

materials and utensils. Attention is given to the systematic organization of the school kitchen and its management under varying conditions. The cost of food is studied in relation to the income of the home and of the school, and the cost of lessons worked out to serve as a basis for comparison.

Fee: $5.00 Credits: 2

ELEMENTARY COOKERY II

This course is a continuation of Cookery I, and provides instruction and practice of more advanced character and a wider application of the principles studied in the first course. It includes a further study of manipulation and the cookery of carbohydrates, protein foods and fats, particularly in combination. Among the subjects emphasized are: the choice and arrangement of appropriate garnishes, correct methods of service, comparison of recipes, substitution and variations, economical use of leftovers, adaptation of lessons to public school work, planning of simple and inexpensive meals to meet the requirements of a standard dietary, and the preparation and serving of a number of these meals. Throughout the course lectures are given and discussions held when occasion demands. Considerable reference work is deemed advisable, as it is one of the aims of the course to bring the students in contact with the newest and best books pertaining to this line of work. Class discussions are held on sequences of lessons and planning courses of study for public school classes. Prerequisite: Cookery I, General Chemistry.

Fee: $5.00 Credit: 3

COOKERY III

Part 1—Canning and Preserving. This work has as its aim the acquisition of knowledge of and skill in the processes and theory involved in canning and preserving. The work will include: Canning by the different methods—stewing or open kettle, oven, intermittent, cold pack; use of hot water bath, water seal outfit, steam pressure canner, aluminum pressure cooker; drying by means of commercial and home-made outfits; jelly making; conserves and marmalades; pickling. Part of the practical work will be conducted in connection with a war kitchen to be operated at The Stout Institute in co-operation with the Council of Defence, during the summer and fall months. Qualified students will be given an opportunity to study the organization of war kitchens and to have charge at stated times.

Part II—Demonstration Work. The aim of this work is to train young women to serve as leaders and demonstrators in home emergency and county agent work. The course consists of the study of the demonstration lecture; its functions, scope, results, plans of procedure, methods of presentation, equipment necessary for different types of demonstrations, and practice in presenting demonstrations before student audiences. Students are given an op-

portunity for service and experience by assistance in county work. Prerequisites: Cookery II, Food Chemistry, Food Study.

Fee: $5.00 Credits: 2

COOKERY IV—MEAL PREPARATION AND SERVING

Short series of lessons on foods suitable for breakfasts, luncheons, suppers, dinners, are followed by the planning and serving of a meal by a group of two, three or four students. Throughout this sequence, lessons are given to review the theory of cookery and the processes of manipulation. Other aims of this sequence are to give students added skill and rapidity in manipulation; to teach simplicity, appropriateness and good taste in service as well as the conventional methods; to emphasize the meal as the unit of cookery and to afford practical application of dietetic principles. Special stress is given to the methods of serving meals in public school classes. Emphasis is placed upon the use of the substitutes, the wheatless and meatless meals. Prerequisite: Cookery III.

Fee: $5.00 Credits: 2

EXPERIMENTAL COOKERY

This is a course in laboratory investigation and testing for advanced students to enable them to determine further facts and gain information for practical use in food preparation and to aid in placing cookery upon a more accurate and scientific basis. The work consists of a qualitative and quantitative study of recipes, of the chemical and physical changes produced by heat, and in the combination of materials; study of the uses of different food materials and cookery apparatus. Much of the work will be in line with war time needs, emphasis being placed upon problems in the use of substitutes to further food conservation. Prerequisites: Cookery III and IV, Food Chemistry.

Fee: $5.00 Credits: 3

FOOD STUDY

The purpose of this course is to give the student a complete, well organized body of knowledge relating to foods and their value to the body. Also to consider the subject from a professional standpoint, its place in public school work, its relation to other subjects, sources of information and illustrative material available. The course begins with an elementary study of metabolism as a foundation for the detailed consideration of the nutritive value of various foods studied. This is follwed by a classification of foods based on their chemical composition. These groups form the natural sub-division of the remainder of the course. The important foods under each class are studied as to source, production, market forms, chemical composition, fuel value, digestibility, place in diet and principles of cookery, special emphasis being laid on those topics relating to nutritive value. The broader subjects of

sanitation, inspection and standards of purity are given due consideration.

Prerequisite: Cookery I, General Chemistry, Parallel Subjects are Cookery II, Food Chemistry. Credits: 3

DIETETICS I

The purpose of this course is to present the fundamental principles of human nutrition and their application to the feeding of individuals, families and larger groups under varying physiological, economic, and social conditions. It includes recitation and laboratory work and is designed to be used as a basis for practical work in dietetics as well as for organizing and teaching the subject in high school. Sherman's "Chemistry of Food and Nutrition" is used as a text for much of this work, but is supplemented by reference reading. A study is made of the functions and nutritive values of foods and the food requirement of individuals and groups of individuals. In the laboratory a study is made of the fuel values of foods; 100 calorie portions of foods are calculated, weighed and tabulated; family dietaries are planned with reference to nutritive needs and the cost with relation to the family income; the relation of dietetics to the most common diseases of nutrition is considered; suitable dietaries are planned and prepared in the laboratory. A careful study is made of the feeding of infants and young children; modification of milk is taught and dietaries for children are planned and cooked.

Prerequisites: Cookery II, Food Chemistry, Food Study.

Fee: $2.00 Credits: 3

DIETETICS II

The purpose of this course is to give advanced students a broader understanding of problems of human nutrition, to acquaint them with original sources of information, and to give them familiarity with methods of research. The work includes recitations and laboratory work. The scope of the course includes the principles and theories of digestion; metabolism; energy requirement; and the ash constituents in metabolism: In the laboratory work dietaries are planned and prepared to meet various conditions as to requirements and cost; dietaries for nutritional diseases are studied; menus are planned for many such diseases, some of which are prepared in the laboratory and their fuel value calculated. Hospital methods and practices are discussed. The latest medical theories and practice of diet are studied. Many problems of particular interest to teachers of Home Economics are taken up in the class work. Among these are the place of dietetics in the school course, the selection of subject matter, the adaptation of material and methods of presentation for high school pupils, books and pamphlets suitable for reference, and the application of dietetics to cookery.

Prerequisites: Dietetics I, Chemistry of Nutrition.

Fee: $2:50 Credits: 4

GENERAL CHEMISTRY

In this course it is proposed to teach the chemical viewpoint of matter, to give definite meaning to necessary technical terms, to teach accuracy and the methods of science. The work includes the study of the common and useful metals and their compounds. Application is made of all principles to chemical phenomena in the field of household arts and reasons for household processes are given. McPherson and Henderson's "Course in General Chemistry" is used as a text. Principles are taught by laboratory experiment supplemented by recitations. A course in high school chemistry is desirable.

Fee: $6.00 Credits: 4

FOOD CHEMISTRY

The purpose of this course is to give the fundamental chemical knowledge necessary for an understanding of household processes involved in cleaning and in cookery; the chemical composition of foods. The work consists of recitation and laboratory work. A brief outline of the course includes: hydrocarbons, as related to fuels and dry cleaning; alcohols, especially the one involved in bread-making; acids, as related to the study of fats, vinegar, fruits, and vegetables; esters, as used for flavorings; fats, carbohydrates, and proteins, as to the occurrence, composition, and reactions; disinfectants; preservatives; patent medicines. Emphasis is constantly placed on the practical and professional side of the study. The points brought out in class discussions have applications to high school cookery, food study, and chemistry, as well as to household management, physiology, and home nursing.

Prerequisites are courses in General Chemistry, and Cookery I.

Fee: $6.00 Credits: 4

QUALITATIVE CHEMICAL ANALYLSIS

The aim of this course is to give the student the power of determinining, in a qualitative way, the constituents in any ordinary material that might come into the home, school, or laboratory. The course is chiefly laboratory work with some recitations and lecture work to emphasize and drill on particular points. Emphasis is placed on technique and a thorough understanding of the chemical principles involved. A brief outline of the course includes: qualitative analysis of the groups of metals; unknown from the groups of metals; qualitative analysis of the organic materials found in foods or their preparation; qualitative analysis of a few textiles; urinalysis, the examination of some unknown food material for its respective constituents.

Prerequisites: General Chemistry and Food Chemistry.

Fee: $7.50 Credits: 3

FOOD ANALYSIS

This is a course in qualitative organic analysis with special reference to teaching standard methods and to the examination of

types of food products. Included in the analysis are milk, cream, syrups, oils, and fats, cereals, preservatives, analysis of water.

Prerequisites: Qualitative Analysis, Chemistry of Nutrition.

Fee: $7.50 Credits: 3

CHEMISTRY OF NUTRITION

This course will present the essential chemical facts pertaining to life processes. The composition and nutrition of the physical units of organization, i. e., cells, will be studied in connection with processes of maintenance, repair, and growth in plants and animals. The laboratory work will include experiments and demonstrations on fermentation; respiration; salivary, gastric, pancreatic, and intestinal digestion; absorption; tissue composition and function; excretion.

Prerequisites: General and Food Chemistry, Microbiology.

Fee: $6.00 Credits: 5

HOUSEHOLD PHYSICS

The purpose of this course is to teach the principles of physics applicable in the use and care of the equipment of homes, schools, and institutions, with particular reference to the sanitary aspects. The course will deal with water supply, plumbing, sewers, heating, ventilation, refrigeration, gas supply, stoves, lamps, electric lighting, cooking and heating, telephone, elevators and dumb-waiters, machinery for dishwashing, laundry, and cleaning, fire extinguishers, and general repairs.

Fee: $3.00 Credits: 3

PHYSIOLOGY AND HYGIENE

This course is planned for the purpose of teaching (a) the structure and function of the body, organs, and tissues; (b) personal hygiene and individual health; (c) public hygiene and general health; (d) physiology and hygiene in relation to the school child. A text book is used, supplemented by reference work. The subject of sex physiology and hygiene is given in a series of lectures by the instructor. Organization and presentation of subject matter and vital present-day school problems of hygiene are discussed.

Credits: 3

MICROBIOLOGY

The subject matter of this course deals with the influence of such micro-organisms as bacteria, yeasts and molds upon home and every day life. The bacteriological problems of personal and public hygiene and sanitation are considered in both laboratory and class room, and are closely related to the work in the Household Arts. The course is prefaced by a brief review of the principles governing plant physiology, modified to serve the needs of students as a preparation for their study of micro-organisms which affect the home. In this introductory course, such topics are considered as: the general nature of organisms, composition of pro-

toplasm, structure of a living cell, the processes of respiration, digestion, growth, reproduction, and sex instruction. Throughout, the physiology of micro-organisms is compared with that of ordinary plant life. The common household molds are then discussed as to morphology, growth, reproduction, use, and control; work on the yeasts follows, and attention is directed to the general nature of the yeast plant, conditions favorable for its growth and reproduction, the utility of yeasts, history of bread making, commercial varieties of yeasts, and a comparison of their value. Bacteria are next studied and their structure, mode of development and reproduction are discussed. The useful and harmful effects of bacteria are considred and emphasis is placed upon the influence of these organisms in relation to food preservation, the nitrogen cycle, the arts and industries, water and milk supplies, immunity and disease.

Prerequisite: Physiology and Hygiene, Food Chemistry.

Fee: $5.00 Credits: 4

PUBLIC HEALTH PROBLEMS

This course deals with problems concerning the conservation and promotion of the health of a community. It includes such hygienic work as study of pure water supply, sewage disposal, milk and food inspection, control of infectious disease, health organizations, child welfare movements, industrial hygiene, war sanitation, village improvement associations, and health exhibits. Opportunity is given for laboratory training necessary to qualify students to make tests to detect the germs of tuberculosis, diphtheria or typhoid in suspected material, as performed by public health laboratories. The health conditions of different local food supplies are investigated and graded. Fumigation and the action of disinfectants on disease organisms are carefully studied in classroom and laboratory. Training is given to enable the student to assist in promoting public health movements by her knowledge and cooperation in every locality where her work may fall, either directly in health laboratories or indirectly though education.

Perequisite: Microbology.

Fee: $5.00 Credits: 4

SEWING I

In this course fundamental processes of elementary sewing are given. Emphasis is placed upon good technique and high standards of workmanship. The subject matter, as in other domestic art courses, may be considered in the following aspects: design, construction, hygiene and economies of textile purchase, with particular emphasis given here to the selection of material and trimmings, comparison of home and shop-made garments as to durability, workmanship, and design, cost, and ethics. The practical work consists briefly of straight line drafting; the making of a corset cover by hand, as an application of the fundamental stitches; practice in machine work, applied in the making of drawers; some problems in repair work.

Fee: $1.00 Credits: 2

SEWING II

This course is a continuation of Sewing I. The practical part consists of further work in under-garment making—the petticoat, night gown, and the making of a child's dress. Both drafted and commercial patterns are studied and used. Throughout both these courses suggestions are made for using and adapting the class work for public school classes and correlating it with textile study. When the skill and time of the students warrant it, problems in making Red Cross hospital or relief garments to be added, or Red Cross garments may be substituted for those of the regular course. The problems are selected with a view to the application of the principles of elementary sewing, and that teachers of clothing may learn methods of class work in connection with Red Cross problems and may have assistance in embodying such problems in their grade and high schools classes.

Prerequisite: Sewing I.

Fee: $1.00 Credits: 2

DRESSMAKING I.

This course includes work with drafted and commercial patterns. The system of drafting taught is simple and through its use the student gains self reliance and independence in adapting and changing commercial patterns. Emphasis is placed upon appropriate lines, materials and colors. High standards of work and details of technique are taught. The finished problems include a wash skirt and wool dress. The place of each in the high school or vocational school course of study and the methods of presenting the various phases of the work are developed through discussion. The student furnishes all materials and supplies subject to the approval of the instructor.

Prerequisites: Sewing I, Drawing and Design.

Fee: $1.00 Credits: 2

DRESSMAKING II

This is a continuation of the Dressmaking I. The aims are greater independence and originality, skill in handling different materials, speed in construction work, and a broader understanding of the scope and content of subject matter in clothing. Drafting is continued in the making of the wash shirt waist. A silk dress is the final problem of the course. The subject of color is reviewed and emphasized in relation to suitability to wearer and occasion. Other topics of discussion are: wearing qualities of fabrics and their appropriateness to design, hygienic and economic aspects of clothing. Further professional work is also included.

Prerequisite: Dressmaking I.

Fee: $1.00 Credits: 2

ADVANCED DRESSMAKING AND DRAFTING

The course reviews the principles of drafting, their application, with a comparison of their advantages and disadvantages. Practice is given in the alteration of drafted patterns, by modeling on the dress form; and in the correct and efficient fitting of garments. The practical work will be developed largely in crinoline, muslin, and tissue paper. The final problem of the course is a dress which is to be an expression of the individuality of the wearer, and an exemplification of good design, color and workmanship.

Prerequisites: Sewing I, Dressmaking I and II, Drawing and Design.

Fee: $1.00 Credits: 3

TEXTILES

The aims of the course are to give to students such knowledge of fabrics and textile materials as to enable them to select intelligently textile materials for school, household, and personal uses, to develop a social spirit with relation to the worker in shops, and factories, and to help students to adapt and use their knowledge of textiles in the teaching of public and vocational school classes in clothing. A short study is made of the early history of the textile arts and of the causes which led to the present conditions in the textile industry. Then follows an intensive study of the fabrics made from the four principal fibers of commerce, with emphasis on those points which affect the wearing quality, prices, and uses. The student is encouraged to make a collection of samples of textile fabrics for class room use. She is, through reference reading, made familiar with the literature of the subject. Emphasis is placed on the present textile situation. Credit: 1

TEXTILE CHEMISTRY

The course includes the identification, by means of the microscope, of fibres and substitute material; the chemical examination of fibres, including tests to determine content of cloth and adulteration; proper use of materials in relation to cleansing and laundering; lectures, and laboratory experiments in dyeing.

Prerequisites: Textiles and Qualitative Analysis.

Fee: $5.00 Credits: 3

DRAWING AND DESIGN

The aim of this work is to gain an understanding of the principles of good design and color harmony, as a foundation for later courses in clothing, design and interior decoration. Emphasis is placed on the ability to appreciate good design rather than the development of creative ability, though the latter is not neglected. Principles are studied in consecutive lessons involving line arrangement, dark and light, and color. The work includes designs for borders, repeating patterns, panels, place cards, book covers, and articles of clothing. Special effort is made to relate all design to the larger problems of costume, home furnishing, and interior

decoration. Much attention is given to the study of arrangements in color.

Fee: $1.50 Credits: 3

APPLIED DESIGN

The study of the general principles of design is continued and the work applied to the designing of problems in the textile field. Materials for household furnishings are studied and related to each other in texture and color. Original designs by the students are applied to textiles by means of stenciling, block printing and embroidery. Much attention is given to color harmony and color values. These materials are studied in relation to one another and also in relation to general schemes of color, as in a costume or in the various rooms of a house.

Prerequisites: Drawing and Design, Interior Decoration.

Fee: $1.50 Credits: 4

COSTUME DESIGN

This course aims to give in a practical way, an appreciative understanding of what artistic costume means. It will be closely related to dressmaking problems in all its phases. The subjects of line, proportion, balance, color harmonies, suitability to different figures are studied from the work of designers as pictured in magazines, and by the handling of actual materials. Color is emphasized by dyeing materials, thus aiding the student in the better understanding and analysis of color results. Alteration of designs, and choice of details for different individuals will be emphasized from the point of view of the teacher of dressmaking or the purchaser of shop-made garments. Professional work of the course includes the place and character of costume design in a high school course, and the kinds and use of illustrative material to be procured.

Prerequisites: Drawing and Design, Dressmaking I and II.

Fee: $1.00 Credits: 3

MILLINERY

Designing, making, and trimming of hats with a view to developing originality, invention, and skill are the main purposes of this course. Stress is placed upon the artistic side of the work by the study of the harmony of color and line. Distinction and individuality in the product are secured by the making of flowers, ornaments and other trimmings. The practical work includes: the making of bandeaux, cabachons, sticks and buckles; the designing of the shapes of the hat; handling wire; cutting, fitting, fastening, altering; covering of wire and buckram frames. Millinery stitches, plaitings, folds, bows, and rosettes are taught.

Prerequisites: Drawing and Design.

Fee: $3.00 Credits: 2

INTERIOR DECORATING AND FURNISHING

The course is taken under two heads: first, the principles un-

derlying good proportion and color harmony; second, the application of these principles to house planning and furnishing. The course is designed to enable the student to plan an attractive, comfortable house that may be built at a moderate cost; to apply artistic and economic principles in determining appropriate and artistic furnishings and decoration and to select from the house furnishings now on the market, such as wall papers, rugs, furniture, etc., the most artistic and the best for the money expended. The professional side of the work is considered throughout the course with the idea that the student may teach the subject in high school.

Prerequisite: Drawing and Design.
Fee: $1.00 Credits: 3

HOUSEHOLD MANAGEMENT

The course in Household Management is designed, by means of class discussion, and related practical work at a practice cottage, to give students an insight into the organization and administrative work of the home. Budget making and account keeping are based on the work at the practice cottage. Sanitation, including heating, lighting, ventilation, plumbing, and the disposal of waste, are studied and discussed in their application to actual household problems. The house as to its plan, construction, and equipment is studied in its relation to initial expense, cost of maintenance and efficiency in the work of the housewife. Consideration is given to the problem of organizing and relating subject matter, designated as Household Management, in the various courses in Home Economics given in the public or vocational schools.

Prerequisites: Cookery II, Food Chemistry. Credits: 4

LAUNDRY

In this course the laundry problem is considered from the point of view of the housewife in connection with the house plan and the organization of work in the house, and from the point of view of the teacher in connection with school equipment and the course of study. The work is based upon a knowledge of the textile fabrics of which various garments are made, and of the chemical reactions involved in the action of reagents used. The laboratory work gives practice in all the processes involved in washing and ironing cotton, linen, woolen, silk, laces, and embroideries. The planning of laundry equipment for school or home, and the execution of the family laundry are among the problems considered. The work consists of discussions, demonstrations and laboratory work.

Prerequisites: General Chemistry, Textiles.
Fee: $1.00 Credit: 1

INSTITUTIONAL MANAGEMENT

The purpose of the course is to acquaint women interested in housekeeping activities of public institutions, dormitories, lunch

rooms and hospitals, with the principles and practices involved in the management of such institutions, so as to obtain the best results, within the organization, for the groups of individuals concerned. The practical side of the course includes the purchasing and examining of food stuffs; testing different brands of foods; planning weekly menus for school lunch rooms, hospitals and dormitories; visits to local institutions; examination of different types of furnishings and equipment. Discussions are held on the different phases of the work, the qualifications and duties of stewards, superintendents, housekeepers, directors of halls, matrons, and laundry managers; the general organization of the work, including service problems, records, accounts, inventories, regulating of expenditures; planning and general care of buildings and rooms for specific purposes, study of dietaries; marketing; laundering; waste and refuse.

Prerequisites: Cookery IV, Dietetics I.
Fee: $1.00 Credits: 3

ORGANIZATION AND MANAGEMENT OF CLASSES IN HOUSEHOLD ARTS

The topics considered in this, a professional course, are: the aims and purposes of Household Arts work in the schools; place of various subjects in the course of study and their correlation; the rural school problem in Household Arts; the vocational school problem; equipment—its selection, purchase, cost and care; cost of maintenance of department; business management. Methods of teaching are studied with reference to the preparation for the lesson, preparation of materials and equipment, presentation of lessons, class and laboratory management. The special teacher is considered from the point of view of her training, personality, relations with other teachers and with other people in the community, attitude toward principals and superintendent. The work consists of lectures and class discussions. This course is not open to students classified as freshmen.

Credit: 1

OBSERVATION AND PRACTICE TEACHING

Every teacher in the Institute bears in mind that it is his work to train his students to teach as well as to teach subjects. In doing this, he calls attention to his modes of presentation of subject matter; to the pedagogical principles he applies in his class work, and to the manner in which the application is made; and to what modification in methods of applying these principles must be made to adapt the instruction to the capabilities of less mature students.

The student, as he comes in contact with different teachers, and in his class work in different subjects, is thus consciously observing the work of skilled teachers and studying the art of teaching, through the concrete application of important pedagogical principles in the teaching of a wide range of subjects.

As a requirement for the diploma, every student must have a unit of practice teaching. This consists of four or more weeks' practice teaching both in Domestic Science and in Domestic Art. The teaching is preceded by a series of observation lessons which form the basis for discussion in the observation class.

The teaching is done in the Menomonie public, parochial, and vocational schools and ranges from fifth grade sewing to fourth year high school dietetics and household management.

This work is planned, directed, and supervised by two supervisors of practice teaching assisted by instructors of Stout Institute. Detailed lesson plans are required for each lesson taught and these must be approved by the supervisor before the lesson is given. Personal consultations and conferences between the student teacher and the supervisors after each lesson, strengthen the work and give direction and guidance when it is most needed. This work is open to students classified as Sophomores. Credits: 2

TEACHING HOUSEHOLD ARTS

Every teacher in the Institute is expected to bear in mind that it is his work to train his students to teach as well as to teach subjects. In doing this, he calls attention to his modes of presentation of subject matter; to the pedagogical principles he applies in his class work, and to the manner in which the application is made; and to what modifications in methods of applying these principles must be made to adapt the instruction to the capabilities of less mature students.

The student as he comes in contact with different teachers and in his class work in different subjects, is thus consciously observing the work of skilled teachers and studying the art of teaching, through the concrete application of important pedagogical principles in the teaching of a wide range of subjects.

The purpose of this course is to apply the principles of teaching to the Household Arts subjects in dealing with the organization of subject matter for daily recitation or laboratory and in studying methods of presentation for the same. The work includes a study of the factors which enter into the teaching process, the fundamental laws of teaching, and their application to Household Arts problems, types of lessons, special methods, standards of work. Observation of class room work is followed by reports, discussions, and opportunity for practice teaching in advanced classes.

Prerequisites: Organization and Management of Household Arts Classes, Psychology II, Principles of Education.

Credits: 2

EXTENSION WORK

The schools alone cannot reach all homes, hence there are now a number of other agencies through which Home Economic workers may strive to solve the many problems of home needs. Among these may be considered extension courses, demonstration lectures,

institute classes, parent-teacher associations, women's clubs, boys' and girls' clubs, social settlement classes, visiting housekeepers, county agents, emergency food agents, and movable schools. To teach the selection, adaptation and organization of material for widely varying conditions, which are to be met by these different media, is the aim of this course. Outlines for lectures, demonstrations, and courses will be required and will form the basis of class discussion. Opportunity will be given students to present before the class some of the lectures and demonstrations outlined. The requirements of the work, the essential characteristics of the worker, the methods to be employed, will be subjects for further study and discussion. Students will be aided in the selection and use of available literature. Emphasis is placed on present war problems and war needs. Open to Seniors only.

Credit: 2

PUBLIC SPEAKING

Training in the use of the voice, enunciation, pronunciation, gesture, and general platform deportment is given. The course aims to train women as demonstrators or lecturers by practical platform experience, how to speak effectively and to appear in public before women's clubs, institutes, and other organizations. Special attention is given to the needs of the individual. Practice in organizing and delivering speeches before the student audience, under the helpful criticism of the instructor is a feature of the course.

Prerequisite: English 1. Credit: 2

HOME AND SOCIAL ECONOMICS

The following courses aim to interpret to students their opportunities and responsibilities as modern women. They supply a certain historic background together with necessary current data, and deal with personal and social problems.

I—THE FAMILY

The object of this course is the development, through reading and discussion, of practical ideals of living as especially related to the family group. With this end in view the family is studied in its primitive forms and traced through history up to modern times. The modern family is studied sympathetically, and at the same time subjected to a critical analysis, including the consideration of such subjects as divorce, desertion, and the social evil. Current social movements making for the betterment of these conditions are considered, such as those resulting in appropriate legislation, the establishment of special courts, education for home-making, and the development and popularization of adequate ideals. Credit: 4

II—WOMAN IN INDUSTRY

As contrasted with the course on the Family, dealing essentially with woman in the home, this course takes for its subject woman as a worker in the outside world. It concerns itself throughout, however, with the correlation of her problems; that is, it bears

in mind the personal and human factor in its study of the occupational field. The material is largely drawn from surveys of the trades, which are studied in detail, after a brief preliminary study of the historic background. Industrial organization as expressed in trust, monopoly and trade union is also briefly studied. An analysis of wrong conditions is followed by a study of such agencies of betterment as the Consumers' League, social and philanthropic work, and vocational education. This course is amplified by current data dealing with war conditions. Credits: 4

III—THE CHILD

It is the aim of this course to make an interpretive study of the child rather from the standpoint of the mother and society than of the teacher. A social survey of the status of the child is made, together with a study of current movements for child-betterment, including such topics as the Children's Bureau, juvenile courts and playgrounds, child labor legislation, and correlated topics. The function of the mother is especially studied, as educator and companion, as well as physical care-taker. Suggestions as to books for children, supplement the course, in connection with the study of the child's mind in its progressive stages.

Prerequisite: Psychology I Credits: 4

THESIS WORK

Work on original problem selected by consultation with the director of Household Arts Department. For Seniors only.

Credits: 2

FURTHER INFORMATION

Inquiries regarding the purpose and character of work offered at The Stout Institute, the regular courses of study or those of the summer session, the Bulletin, and other publications of the school; or inquiries regarding the qualifications of Stout graduates for the teaching of special subjects, should be addressed to

L. D. HARVEY,
President.

The Stout Institute,
Menomonie, Wisconsin.

CALENDAR FOR 1918-1919

Thirteenth Annual Summer Session begins
July 29, 1918---Ends August 30, 1918

Sixteenth Regular Session begins
September 16, 1918---Ends June 6, 1919

First Semester ends January 31, 1919
Second Semester begins February 3, 1919

Holiday Vacation begins December 20, 1918
Holiday Vacation ends January 6, 1919